

High-performance connector for docking applications

DuraDock power

EN



STÄUBLI ELECTRICAL CONNECTORS

Connections for Life



Stäubli, as the international technology leader, offers innovative mechatronics solutions in its four divisions: Electrical Connectors, Fluid Connectors, Robotics, and Textile. At Stäubli Electrical Connectors, we develop advanced connection solutions based on the reliable MULTILAM contact technology.

Together for reliable and safe connections

We know that you entrust us with the functionality of your applications and we work hard to ensure this every single day. Thanks to our high level of expertise, our extensive experience and the multiple successful co-operation with our partners, numerous new developments have originated at Stäubli Electrical Connectors and subsequently have become worldwide standards. This includes our MC4 connector portfolio for which we are today the global market

We create connections for life – and our customers are at the center of these connections. We are convinced that solid and stable partnerships directly contribute to our mutual success.

We take on the needs of our partners and deal with the most extraordinary challenges. As a result, we always create, sell and

leader in photovoltaic. As the Stäubli original, the MC4 represents the result of our constant quest for innovation, quality and safety.

Further examples are the CombiTac modular connector system or the Quick Charging Connector (QCC) for automatic charging systems.

We ensure connections for life together with our long-standing customers in a wide range of industries from renewable energies, power transmission and distribution and E-mobility to industrial automation applica-

support reliable and long-lasting products for markets with the highest productivity and safety requirements in close cooperation with our customers.

tions, railway and welding automation, test and measurement and medical devices.

Thus, developing reliable, efficient and safe solutions based on our proven MULTILAM contact technology, which guarantees a high service lifetime in addition to highly efficient power transmission.

Applications and benefits



Automated industrial applications with high mating cycles require constant and safe power transmission, especially for high currents and voltages. Stäubli delivers suitable high-performance connectors for advanced automation technology.

DuraDock power single-pole connectors were developed for the safe transmission of the highest energies and currents. They were designed for test applications with up to 100,000 mating cycles, where the highest service life, reliability, and safety are critical.

Areas of application

The connectors are suitable for a variety of industrial applications, e.g., in E-mobility, railways, and mechanical engineering.

Your benefits:

- Unparalleled advanced contact reliability thanks to MULTILAM contact technology
- Robust, reliable and user-friendly – up to 100,000 mating cycles
- High current-carrying capacity with minimal contact resistance for a long life span
- Numerous possible combinations with the other connectors of the DuraDock multi series (four sizes with up to 72 poles) for almost all applications.

Test systems:

- Automatic docking in test benches and production processes
- Test bench technology in E-mobility and battery production
- Test benches for wind turbines

Manufacturing:

- Test systems for in-line testing with high currents

Plant engineering:

- Interface in manufacturing modules of modular production lines
- Docking station to supply moving machines, for example, mobile melting furnaces

Contents

Page 6	Overview <ul style="list-style-type: none">• Model overview• Features• Installation situation
Page 12	Connectors <ul style="list-style-type: none">• Uninsulated version• Insulated version• Shielded/insulated version
Page 22	Accessories <ul style="list-style-type: none">• Installation tool• Spare parts
Page 28	Technical specifications <ul style="list-style-type: none">• Drilling plans• Technical data• Derating diagrams
Page 34	Index

General information

Changes/reservations

All data, illustrations, and drawings in the catalog have been carefully checked. They are in accordance with our experience to date, but no responsibility can be accepted for errors. We also reserve the right to make modifications for design and safety reasons. When designing equipment incorporating our components, it is therefore advisable not to rely solely on the data in the catalog but to consult us to make sure this information is up to date. We shall be pleased to advise you.

Copyright

The use of this catalog for any other purpose, in whatever form, without our prior written consent is not permitted.

RoHS ready

Directive 2011/65/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Symbols



Accessories or special tools exist for this product



Assembly instructions MA000 are available for this product



OVERVIEW

Model overview

DuraDock power is designed for currents up to 550 A, depending on conductor cross-section and contact diameter, and up to 100,000 mating cycles. Three versions are available:

- uninsulated without housing
- insulated in plastic housing
- shielded/insulated in metal housing

When unmated, the connectors are IP2X touch proof. With the uninsulated version, ensure that the contact protection on the cable outlet side is designed in accordance with our assembly instructions. For this version, the user must ensure there is protection against electric shock. The versions with housing have degree of protection IP54 (in-

sulated) or IP55 to IP57 (shielded/insulated). DuraDock power can be inserted in docking plates of 10 mm (0.39 in.) or 14 mm (0.55 in.) thickness, and at a plate spacing of 13 mm (0.51 in.) or 37 mm (1.45 in.). It is possible to combine different plate thicknesses, e.g. the plug side with 10 mm and the socket side with 14 mm thickness.

Nominal contact Ø	Rated current	Maximum conductor cross-section		Version	Cable outlet	Page
16 mm (0.63 in.)	205 A – 300 A	35 mm ² – 95 mm ²	2 AWG – 3/0 AWG	uninsulated	straight	12
					angled 90°	14
16 mm (0.63 in.)	205 A – 300 A	35 mm ² – 95 mm ²	2 AWG – 3/0 AWG	insulated	straight	16
					angled 90°	18
28 mm (1.10 in.)	410 A – 550 A	120 mm ² – 240 mm ²	250 MCM – 450 MCM	uninsulated	straight	12
					angled 90°	14
28 mm (1.10 in.)	410 A – 550 A	120 mm ² – 240 mm ²	250 MCM – 450 MCM	insulated	straight	16
					angled 90°	18
28 mm (1.10 in.)	410 A – 550 A	120 mm ² – 240 mm ²	250 MCM – 450 MCM	shielded/insulated	straight	20

Type code

Type code example:

DPR28P-ISD-CB185M50

DPR28P-ISD-CB185M50	DuraDock power
DPR28P-ISD-CB185M50	Contact diameter (mm)
DPR28P-ISD-CB185M50	P: Pin; S: Socket
DPR28P-ISD-CB185M50	Version, UIS: uninsulated; ISD: insulated; SDD: shielded/insulated
DPR28P-ISD-CB185M50	CB: Crimp connection; CLG: Cable lug
DPR28P-ISD-CB185M50	Conductor cross-section: 120 mm ² ; 150 mm ² ; 185 mm ² ; 240 mm ²
DPR28P-ISD-CB185M50	Cable gland thread size: M50

Uninsulated version

- Pre-assembled contact for direct installation in a docking plate or a device
- Cable outlet straight or angled 90°
- Degree of protection IP2X in unmated condition when installed according to our assembly instructions



Insulated version

- Pre-assembled contact in plastic housing
- Cable outlet straight or angled 90°, the respective unused cable outlet is closed with the supplied blind plug
- Degree of protection IP54, IP2X

Shielded/insulated version

- Pre-assembled contact in metal housing
- Cable outlet straight
- Degree of protection IP55 to IP57, IP2X



Features



IP2X

Safety and use

- IP2X touch protection on the pin and socket side
- Complete solution for fast mounting
- Plate installation without special tools

Variety and flexibility

- Conductor cross sections from 35 mm² to 240 mm² (from 2 AWG to ~450 MCM)
- Cable outlet straight or angled 90°
- Uninsulated, insulated, or shielded/insulated versions
- Suitable for plate thicknesses of 10 mm and 14 mm (0.39 and 0.55 in.)
- Suitable for plate spacing of 13 mm and 37 mm (0.51 and 1.45 in.)



Cable outlet
straight or angled 90°

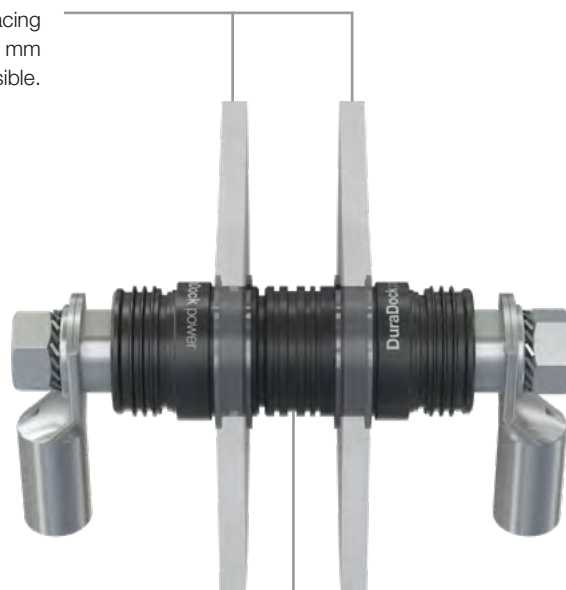


Conductor cross sections
from 120 mm² to 240 mm²
(from ~250 MCM to ~450 MCM)

Performance and longevity

- High current-carrying capacity of up to 550 A
- High withstand voltage of up to 1500 V
- High mating cycles, up to 100,000
- Very robust design for industrial environment
- Insulated versions with degree of protection up to IP57

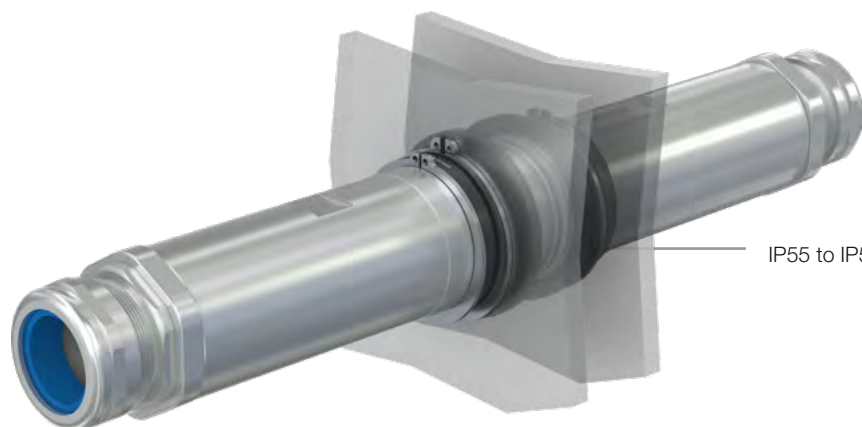
Plate spacing
13 mm and 37 mm
(0.51 in. and 1.45 in.) possible.



High mating cycles



IP54



IP55 to IP57

360° shielding

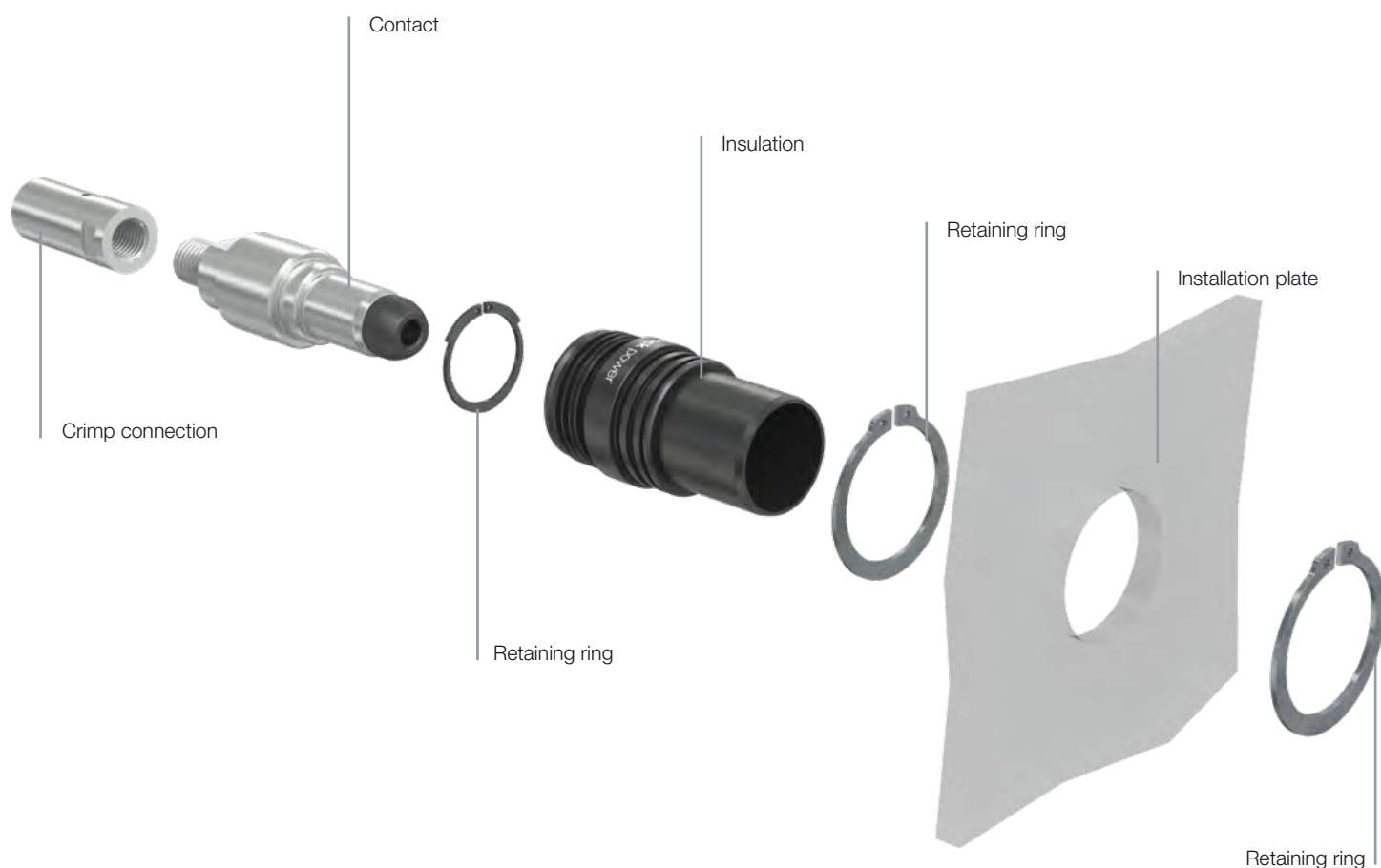
Installation situation

DuraDock power can be inserted in docking plates of 10 mm or 14 mm (0.39 or 0.55 in.) thickness, and at a plate spacing of 13 mm or 37 mm (0.51 and 1.45 in.). See page 29 for additional details.

Note:

The housing must not be used for mechanical alignment. Stable guiding elements must be used for safe application and correct alignment of the plates.

Locking has to be ensured by the plate design.



Installation example



DURADOCK POWER CONNECTOR

Uninsulated version

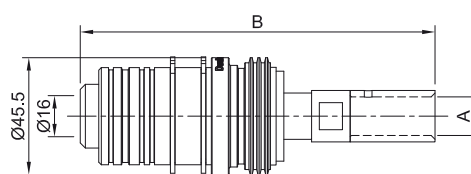
Cable outlet straight

Pin and socket without housing. The cable is crimped with a straight cable outlet. The connector is pre-assembled. The crimp connection and retaining rings are included in the delivery

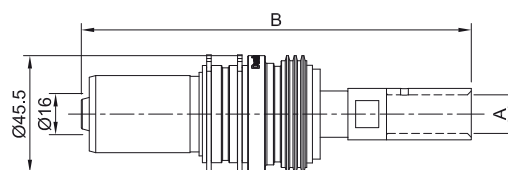
Note

The user has to ensure that the touch protection on the cable side has been implemented.

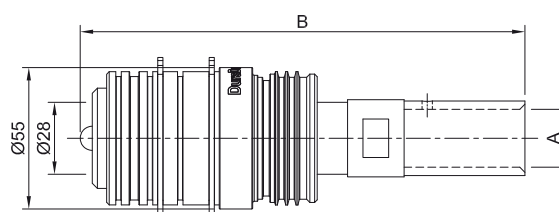
DPR16S-UIS-CB...



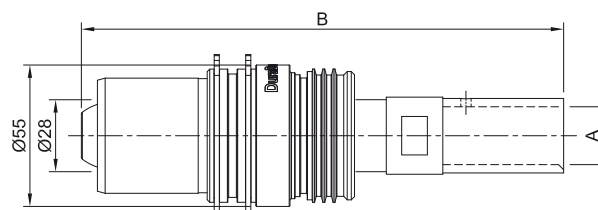
DPR16P-UIS-CB...



DPR28S-UIS-CB...



DPR28P-UIS-CB...



Order No.	Type	Socket	Pin	Nominal contact Ø	Conductor cross-section		Crimp connection inner Ø	Dimension B		Rated current	Connection type
				mm	mm ²	AWG/MCM		A (mm)	B (mm)		

DuraDock power 16 (up to 300 A)

18.0393	DPR16S-UIS-CB35	x		16	35	AWG 2	9	138	205	Crimp connection
18.0390	DPR16P-UIS-CB35		x					152		
18.0394	DPR16S-UIS-CB50	x		16	50	AWG 1	11	138	240	
18.0391	DPR16P-UIS-CB50		x					152		
18.0395	DPR16S-UIS-CB70	x		16	70	AWG 2/0	13	138	260	
18.0392	DPR16P-UIS-CB70		x					152		
18.0541	DPR16S-UIS-CB95	x		16	95	AWG 3/0	15	138	300	
18.0540	DPR16P-UIS-CB95		x					152		

DuraDock power 28 (up to 550 A)

18.0294	DPR28S-UIS-CB120	x		28	120	250 MCM	17	168	410	Crimp connection
18.0296	DPR28P-UIS-CB120		x					183		
18.0288	DPR28S-UIS-CB150	x		28	150	300 MCM	19	168	450	
18.0286	DPR28P-UIS-CB150		x					183		
18.0276	DPR28S-UIS-CB185	x		28	185	AWG 6/0 350 MCM	21	173	490	
18.0280	DPR28P-UIS-CB185		x					188		
18.0266	DPR28S-UIS-CB240	x		28	240	AWG 7/0 450 MCM	22.5	173	550	
18.0267	DPR28P-UIS-CB240		x					188		


Assembly instructions
DuraDock power 16: MA313
DuraDock power 28: MA312
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Cable outlet bent 90°

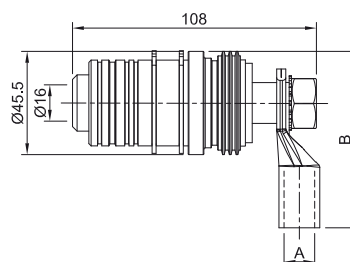
Pin and socket without housing. When the cable outlet is angled the cable is connected using a cable lug. The connector is pre-assembled. The cable lug, retaining rings, and

other installation accessories are included in the delivery.

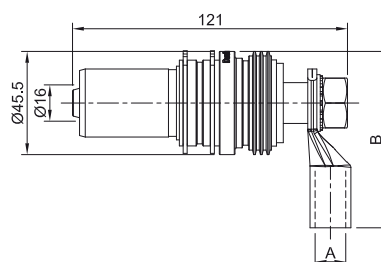
Note

The user has to ensure that the touch protection on the cable side has been implemented.

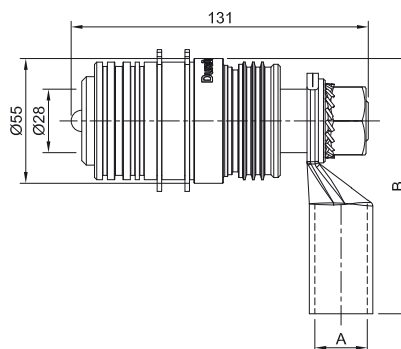
DPR16S-UIS-CLG...



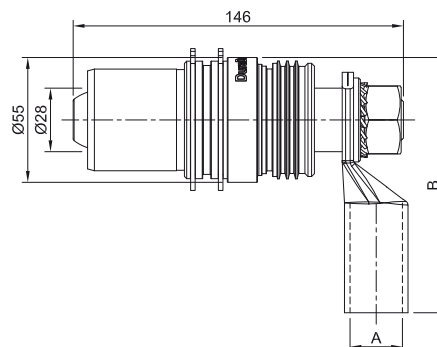
DPR16P-UIS-CLG...



DPR28S-UIS-CLG...



DPR28P-UIS-CLG...



Order No.	Type	Socket	Pin	Nominal contact Ø	Conductor cross-section	Crimp connection inner Ø	Dimension B	Rated current	Connection type
				mm	mm ²	AWG/MCM	A (mm)	B (mm)	A

DuraDock power 16 (up to 300 A)

18.0544	DPR16S-UIS-CLG35	x		16	35	AWG 2	9,2	66	205	Cable lug
18.0547	DPR16P-UIS-CLG35		x	16	35	AWG 2	9,2	66	205	
18.0545	DPR16S-UIS-CLG50	x		16	50	AWG 1	11	71	240	
18.0548	DPR16P-UIS-CLG50		x	16	50	AWG 1	11	71	240	
18.0546	DPR16S-UIS-CLG70	x		16	70	AWG 2/0	13.1	74	260	
18.0549	DPR16P-UIS-CLG70		x	16	70	AWG 2/0	13.1	74	260	
18.0543	DPR16S-UIS-CLG95	x		16	95	AWG 3/0	14.5	78	300	
18.0542	DPR16P-UIS-CLG95		x	16	95	AWG 3/0	14.5	78	300	

DuraDock power 28 (up to 550 A)

18.0293	DPR28S-UIS-CLG120	x		28	120	250 MCM	16.2	93.5	410	Cable lug
18.0292	DPR28P-UIS-CLG120		x	28	120	250 MCM	16.2	93.5	410	
18.0284	DPR28S-UIS-CLG150	x		28	150	300 MCM	18	97.5	450	
18.0282	DPR28P-UIS-CLG150		x	28	150	300 MCM	18	97.5	450	
18.0278	DPR28S-UIS-CLG185	x		28	185	AWG 6/0 350 MCM	20.6	99.5	490	
18.0274	DPR28P-UIS-CLG185		x	28	185	AWG 6/0 350 MCM	20.6	99.5	490	
18.0250	DPR28S-UIS-CLG240	x		28	240	AWG 7/0 450 MCM	23.1	112.5	550	
18.0249	DPR28P-UIS-CLG240		x	28	240	AWG 7/0 450 MCM	23.1	112.5	550	



Assembly instructions

DuraDock power 16: MA313

DuraDock power 28: MA312

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Insulated version

Cable outlet straight

Pin and socket in plastic housing consisting of two half-shells.

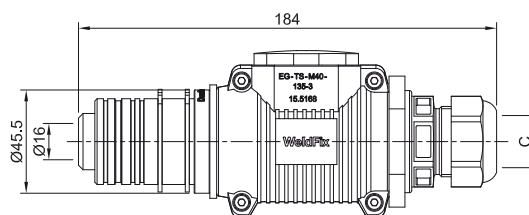
The connector is pre-assembled. The crimp connection, housing, and other installation

accessories are included in the delivery (please correct in the hole flyer)

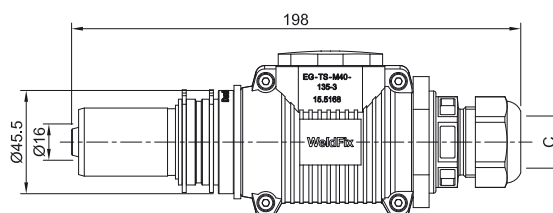
Note:

When using the straight cable outlet, the unused bent cable outlet is closed with a blind Pin (in the scope of delivery).

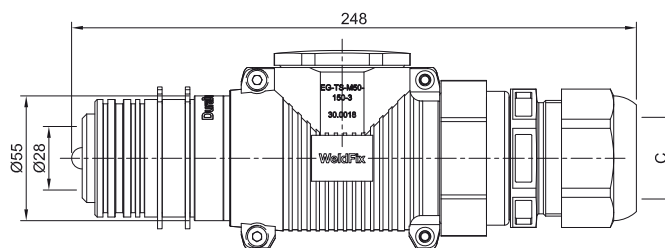
DPR16S-ISD-CB...M32



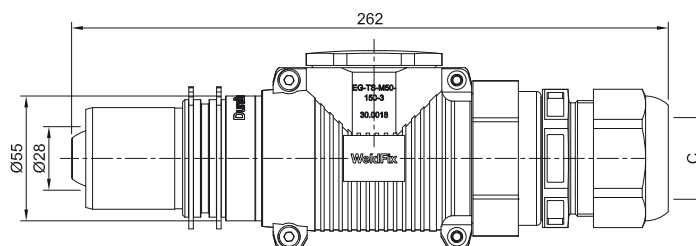
DPR16P-ISD-CB...M32



DPR28S-ISD-CB...M50



DPR28P-ISD-CB...M50



Order No.	Type	Socket	Pin	Nominal contact Ø	Conductor cross-section	Crimp connection inner Ø	Rated current	Cable Ø	Connection type
				mm	mm ² / AWG/MCM	mm	A	C (mm)	

DuraDock power 16 (up to 300 A)

18.0524	DPR16S-ISD-CB35M32	x		16	35	AWG 2	9	205	min. 9 max. 21	Crimp connection
18.0396	DPR16P-ISD-CB35M32		x							
18.0525	DPR16S-ISD-CB50M32	x		16	50	AWG 1	11	240		
18.0397	DPR16P-ISD-CB50M32		x							
18.0526	DPR16S-ISD-CB70M32	x		16	70	AWG 2/0	13	260		
18.0398	DPR16P-ISD-CB70M32		x							
18.0521	DPR16S-ISD-CB95M32	x		16	95	AWG 3/0	15	300	min. 19 max. 25	
18.0520	DPR16P-ISD-CB95M32		x							

DuraDock power 28 (up to 550 A)

18.0295	DPR28S-ISD-CB120M50	x		28	120	250 MCM	17	410	min. 16 max. 35	Crimp connection
18.0297	DPR28P-ISD-CB120M50		x							
18.0289	DPR28S-ISD-CB150M50	x		28	150	300 MCM	19	450		
18.0287	DPR28P-ISD-CB150M50		x							
18.0277	DPR28S-ISD-CB185M50	x		28	185	AWG 6/0 350 MCM	21	490		
18.0281	DPR28P-ISD-CB185M50		x							
18.0253	DPR28S-ISD-CB240M50	x		28	240	AWG 7/0 450 MCM	22.5	550		
18.0262	DPR28P-ISD-CB240M50		x							



Assembly instructions

DuraDock power 16: MA313

DuraDock power 28: MA312

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Insulated version

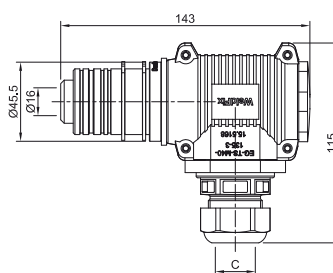
Cable outlet bent 90°

Pin and socket in plastic housing consisting of two half-shells. The connector is pre-assembled. The cable lug, housing, and other installation accessories are included in the delivery.

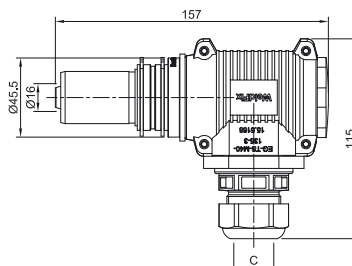
Note:

When using the bent cable outlet, the unused straight cable outlet is closed with a blind Pin (in the scope of delivery).

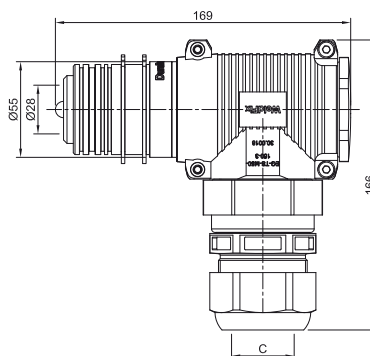
DPR16S-ISD-CLG...M32



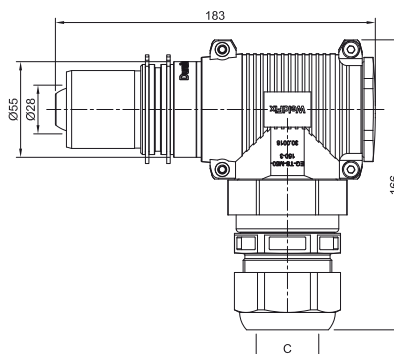
DPR16P-ISD-CLG...M32



DPR28S-ISD-CLG...M50



DPR28P-ISD-CLG...M50



Order No.	Type	Socket	Pin	Nominal contact Ø	Conductor cross-section		Cable lug inner Ø	Rated current	Cable Ø	Connection type
				mm	mm ²	AWG/MCM	mm	A	C (mm)	

DuraDock power 16 (up to 300 A)

18.0527	DPR16S-ISD-CLG35M32	x		16	35	AWG 2	9.2	205	min. 9 max. 21	Cable lug with crimp connection	
18.0530	DPR16P-ISD-CLG35M32		x								
18.0528	DPR16S-ISD-CLG50M32	x		16	50	AWG 1	11	240			
18.0531	DPR16P-ISD-CLG50M32		x								
18.0529	DPR16S-ISD-CLG70M32	x		16	70	AWG 2/0	13.1	260			
18.0532	DPR16P-ISD-CLG70M32		x								
18.0523	DPR16S-ISD-CLG95M32	x		16	95	AWG 3/0	14.5	300			min. 19 max. 25
18.0522	DPR16P-ISD-CLG95M32		x								

DuraDock power 28 (up to 550 A)

18.0290	DPR28S-ISD-CLG120M50	x		28	120	250 MCM	16.2	410	min. 16 max. 35	Cable lug with crimp connection
18.0291	DPR28P-ISD-CLG120M50		x							
18.0285	DPR28S-ISD-CLG150M50	x		28	150	300 MCM	18	450		
18.0283	DPR28P-ISD-CLG150M50		x							
18.0279	DPR28S-ISD-CLG185M50	x		28	185	AWG 6/0 350 MCM	20.6	490		
18.0275	DPR28P-ISD-CLG185M50		x							
18.0254	DPR28S-ISD-CLG240M50	x		28	240	AWG 7/0 450 MCM	23.1	550		
18.0255	DPR28P-ISD-CLG240M50		x							



Assembly instructions

DuraDock power 16: MA313

DuraDock power 28: MA312

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Shielded/insulated version

Cable outlet straight

Pin and socket in shielded/insulated metal housing.

The connector is pre-assembled. The crimp connection, housing, and other installation accessories are included in the delivery.

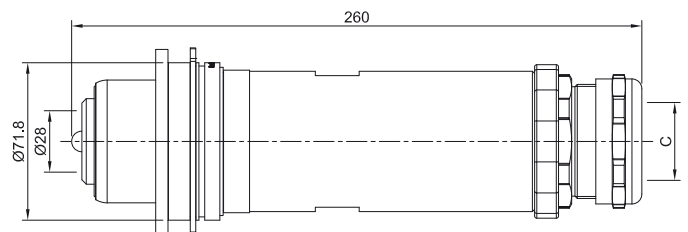
Shielding principle

The Stäubli MULTILAM serves as contact elements between the housings. They extend the shield and ensure optimal 360° shielding. An EMC cable gland connects the shield.

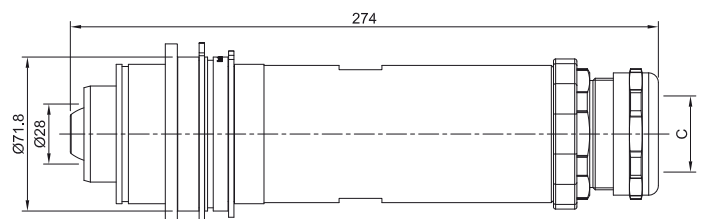
Advantages

- Easy cabling with EMC cable gland
- No electrical connection between housing and installation plate
- Shielding loops are prevented during installation

DPR28S-SDD-CB...



DPR28P-SDD-CB...



Order No.	Type	Socket	Pin	Nominal contact Ø	Conductor cross-section		Crimp connection inner Ø	Rated current	Cable Ø	Connection type	Screw connection
				mm	mm ²	AWG/MCM					

DuraDock power 28 (up to 550 A)

18.0271	DPR28S-SDD-CB120M40	x		28	120	250 MCM	17	410	min. 15 max. 25	Crimp connection	EMV (M40)
18.0268	DPR28P-SDD-CB120M40		x								
18.0272	DPR28S-SDD-CB150M40	x		28	150	300 MCM	19	450	min. 15 max. 25		
18.0269	DPR28P-SDD-CB150M40		x								
18.0273	DPR28S-SDD-CB185M40	x		28	185	AWG 6/0 350 MCM	21	490	min. 15 max. 25		
18.0270	DPR28P-SDD-CB185M40		x								
18.0252	DPR28S-SDD-CB240M50	x		28	240	AWG 7/0 450 MCM	22.5	550	min. 31 max. 42		EMV (M50)
18.0251	DPR28P-SDD-CB240M50		x								



Assembly instructions

DuraDock power 28: MA312

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ACCESSORIES


Tools

Open-ended wrench insert (for torque wrench)

Manufacturer	Order No.	Type	Description	Width across flats (mm)	required for	torque
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Stäubli tools



Stäubli	18.0551	DE SW57_A	Clamping tool insert	SW 57	Shielded/insulated version	 see MA 312
	18.0550	DE SW65-A	Clamping tool insert	SW 65		

Tools of other manufacturer, not available via Stäubli

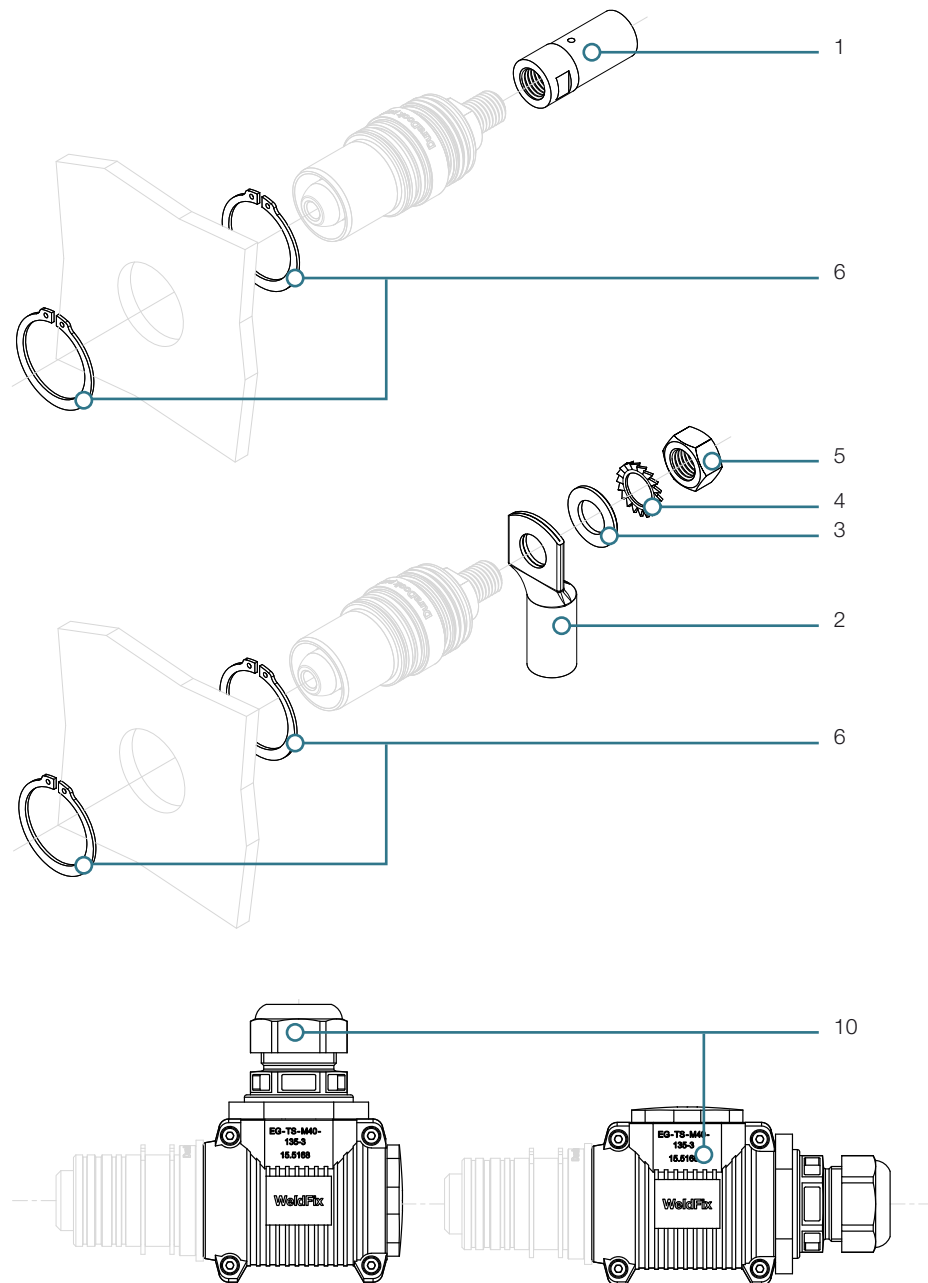


Stahlwille	731/100 SW 55	Jaw insertion tools No 731/100	Clamping tool insert, tool holder 22 mm x 28 mm (0.866 in. x 1.102 in.)	SW 55	Insulated version	 see MA 312
	731/100 SW 60			SW 60		

Manufacturer	Electrohydraulic pliers	Hand pliers	Crimping head	Possible conductor cross sections	Name	Condition
Klauke	x			16 mm ² – 300 mm ²	EK60VPFTCFM	Class 5 and class 6 cables
		x		10 mm ² – 240 mm ²	HK 60 VP	
		x		16 mm ² – 300 mm ²	HK 60 VP/FT	
			x	10 mm ² – 240 mm ²	PK 60 VP	
			x	16 mm ² – 300 mm ²	PK 60 VP/FT	

Spare parts

DuraDock power 16 (up to 300 A)



Pos.	Order No.	Type	Description	Version		
				uninsulated	insulated	shielded

Crimp connection (cable outlet straight)

1	18.7577	H35N/M14	Crimp connection, conductor cross section 35 mm ²	x	x	x
1	18.7580	H50N/M14	Crimp connection, conductor cross section 50 mm ²	x	x	x
1	18.7574	H70N/M14	Crimp connection, conductor cross section 70 mm ²	x	x	x
1	07.0022	H95N/M14	Crimp connection, conductor cross section 95 mm ²	x	x	x

Cable lugs and accessories (cable outlet bent 90°)

2	17.1015	K-SCH35-14/K	Cable lug, conductor cross section 35 mm ²	x	x	
2	17.1014	K-SCH50-14/K	Cable lug, conductor cross section 50 mm ²	x	x	
2	17.1013	K-SCH70-14/K	Cable lug, conductor cross section 70 mm ²	x	x	
2	17.0067	K-SCH95-14/K	Cable lug, conductor cross section 95 mm ²	x	x	
3	08.0404	UE/M14X1 AG	Washer, all conductor cross sections	x	x	
4	08.0708	F/M14 DIN6798A BN781	Spring washer, all conductor cross sections	x	x	
5	08.0108	MU0,8D/M14 AG	Nut, all conductor cross sections	x	x	

Retaining rings

6	18.5627	SI-RG A38 DIN471 FS	Retaining ring	x	x	
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Housings

10	18.0569	SPD-DPR16-ISD	End housing with cable gland, conductor cross section 35 – 70 mm ²		x	
10	18.0572	SPD-DPR16S/95-ISD	End housing with cable gland, conductor cross section 95 mm ²		x	



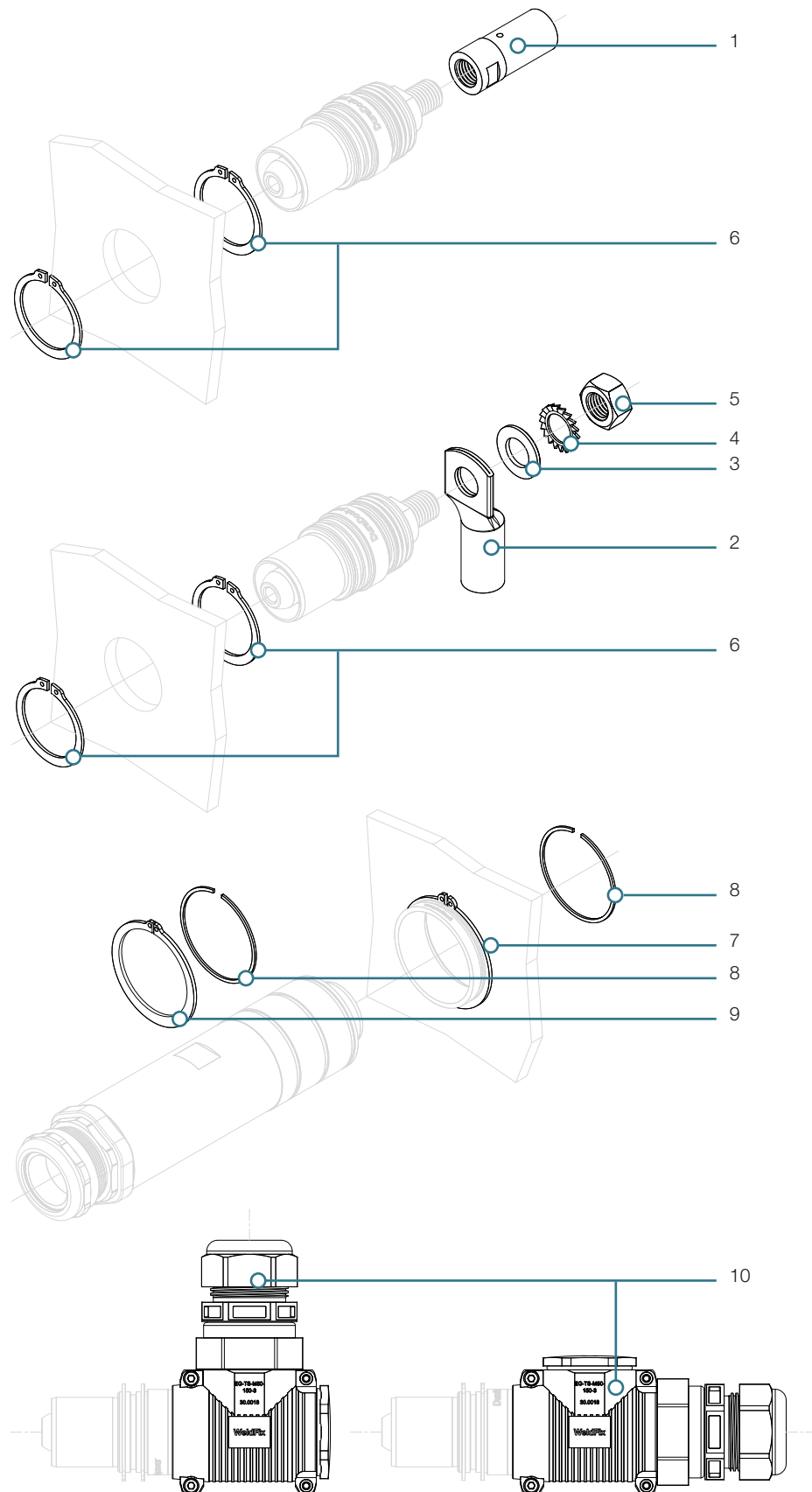
Assembly instructions

DuraDock power 16: MA313

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Spare parts

DuraDock power 28 (up to 550 A)



Pos.	Order No.	Type	Description	Version		
				uninsulated	insulated	shielded

Crimp connection (cable outlet straight)

1	18.7566	H120N/M20	Crimp connection, conductor cross section 120 mm ²	x	x	x
1	18.7563	H150N/M20	Crimp connection, conductor cross section 150 mm ²	x	x	x
1	18.7560	H185N/M20	Crimp connection, conductor cross section 185 mm ²	x	x	x
1	33004292	H240N/M20/DDP	Crimp connection, conductor cross section 240 mm ²	x	x	x

Cable lugs and accessories (cable outlet bent 90°)

2	17.1011	K-SCH120-20/K	Cable lug, conductor cross section 120 mm ²	x	x	
2	17.1010	K-SCH150-20/K	Cable lug, conductor cross section 150 mm ²	x	x	
2	17.1009	K-SCH185-20/K	Cable lug, conductor cross section 185 mm ²	x	x	
2	17.0066	K-SCH240-20/K	Cable lug, conductor cross section 240 mm ²	x	x	
3	08.0311	U/M20 AG	Washer, all conductor cross sections	x	x	
4	08.0711	F/M20 DIN6798A BN781	Spring washer, all conductor cross sections	x	x	
5	08.0111	MU0,8D/M20 AG	Nut, all conductor cross sections	x	x	

Retaining rings and snap rings (for plate installation)

6	18.5609	SI-RG A52 DIN471 FS	Retaining ring	x	x	
7	18.5805	SI-RG A72 DIN471	Retaining ring to fix the insulating sleeve to the plate			x
8	33004186	SW65	Snap ring to fix the connector to insulating sleeve			x
9	33004360	SI-RG A65 DIN471 BN682	Retaining ring for plate spacing 37 mm (only pin side)			x

Housings

10	18.0570	SPD-DPR28-ISD	End housing with cable gland, all conductor cross sections		x	
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The housing for the shielded version is not available as a spare part..



Assembly instructions

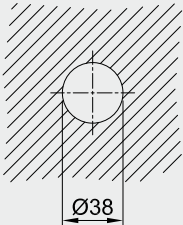
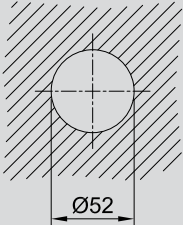
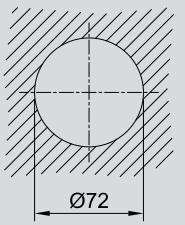
DuraDock power 28: MA312

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TECHNICAL SPECIFICATIONS

Drilling plan and installation dimensions

Drilling plan for a docking plate

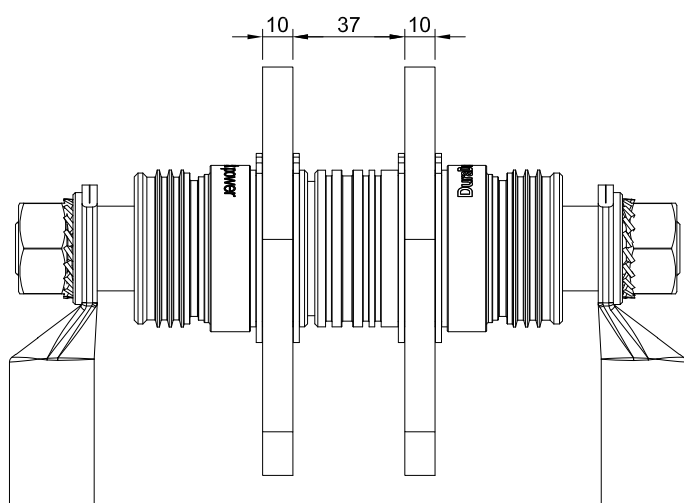
Drilling hole size can be used for model...	
<p>DuraDock power 16 (up to 300 A) Version uninsulated Version insulated</p>  <p>Specification in mm, tolerance: D^{E8}</p>	
<p>DuraDock power 28 (up to 550 A) Version uninsulated Version insulated</p>  <p>Specification in mm, tolerance: D^{E8}</p>	<p>DuraDock power 28 (up to 550 A) Version insulated/shielded</p>  <p>Specification in mm, tolerance: D^{E8}</p>

Installation dimensions

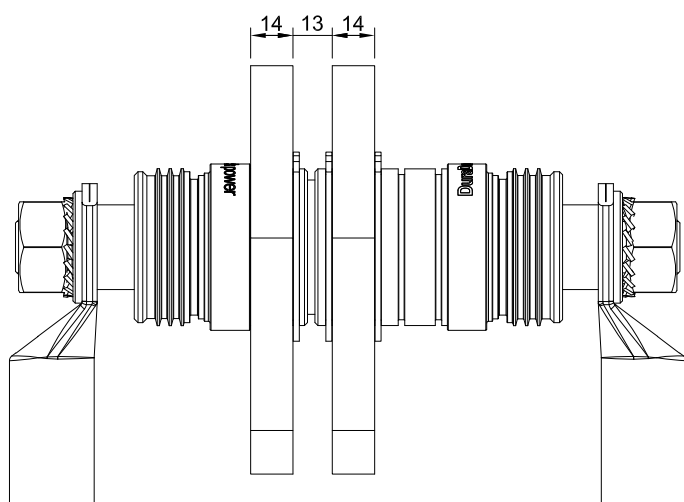
The installation plate has to be either 10 mm or 14 mm (0.39 or 0.55 in.) thick.

The spacing between these installation plates has to be either 13 mm or 37 mm (0.51 and 1.45 in.).

It is possible to combine the plate thicknesses, e.g. the plug side with 10 mm and the socket side with 14 mm thickness.



Example with 10 mm (0.39 in.) plate thickness and 37 mm (1.45 in.) plate spacing



Example with 14 mm (0.55 in.) plate thickness and 13 mm (0.51 in.) plate spacing

Technical data

Technical data		Version		
		Uninsulated	Insulated	Insulated/shielded
Contact system		MULTILAM		
Rated current ¹⁾ (derating diagrams, from page 31)	DuraDock power 16 DuraDock power 28	max. 300 A max. 550 A		
Rated voltage		AC 25 V/DC 60 V (without protection area)	AC 1000 V/DC 1500 V	
Conductor cross-section		DuraDock power 16 DuraDock power 28 35 mm ² – 95 mm ² (2 AWG – 3/0 AWG) 120 mm ² – 240 mm ² (250 MCM – 450 MCM) (95 mm ² (3/0 AWG) on request)		
Overvoltage category		CATIII		
Degree of pollution		3		
Insulating material group		I		
Total contact resistance	DuraDock power 16 DuraDock power 28	<80 μΩ <30 μΩ		
Test voltage		8.25 kV (50 – 60 Hz) for 1 min.		
Insulation coordination according to IEC 60664-1, DIN VDE 0110-1		15 kV		
Insulation temperature resistance		POM: -40 °C ... +100 °C		
Ambient temperature		max. 40 °C ¹⁾		
Operating temperature		-10 °C ... +100 °C		
Storage temperature		-40 °C ... +80 °C		
Protection type, unplugged		IP2X ²⁾	IP2X	IP2X
Protection type, plugged in		IP2X ²⁾	IP54	IP55, IP56, IP57
Total connector insertion force	DuraDock power 16 DuraDock power 28	max. 20 N max. 100 N	max. 130 N max. 200 N	– ca. 400 N
Safety class		II		
Connection type	axial outlet 90° outlet	Crimp connection Cable lug		
Contact material		CuZn alloy, silver-plated		
Insulation material		POM		
Housing material		-	PA	Aluminum alloy
Shielding (360°) (diagrams, from page 33)		-	-	>71 dB
Additional regulations		IEC 60664-1:2020 DIN VDE 0627/EN 61984:2009 DIN VDE 0298-4:2003		

Notes:

- The housing must not be used for mechanical alignment. Stable guides and alignment elements must be used for safe application and correct alignment of the plates (see illustration page 11).
- With the uninsulated version, ensure that the contact protection on the cable outlet side (behind the docking plate) is designed in accordance with the assembly instructions. The user must ensure there is protection against electric shock.

¹⁾ At ambient temperatures above 40°C the current must be reduced according to the derating diagram.

²⁾ Only in the insertion area in front of the plate (see note)

Derating diagram

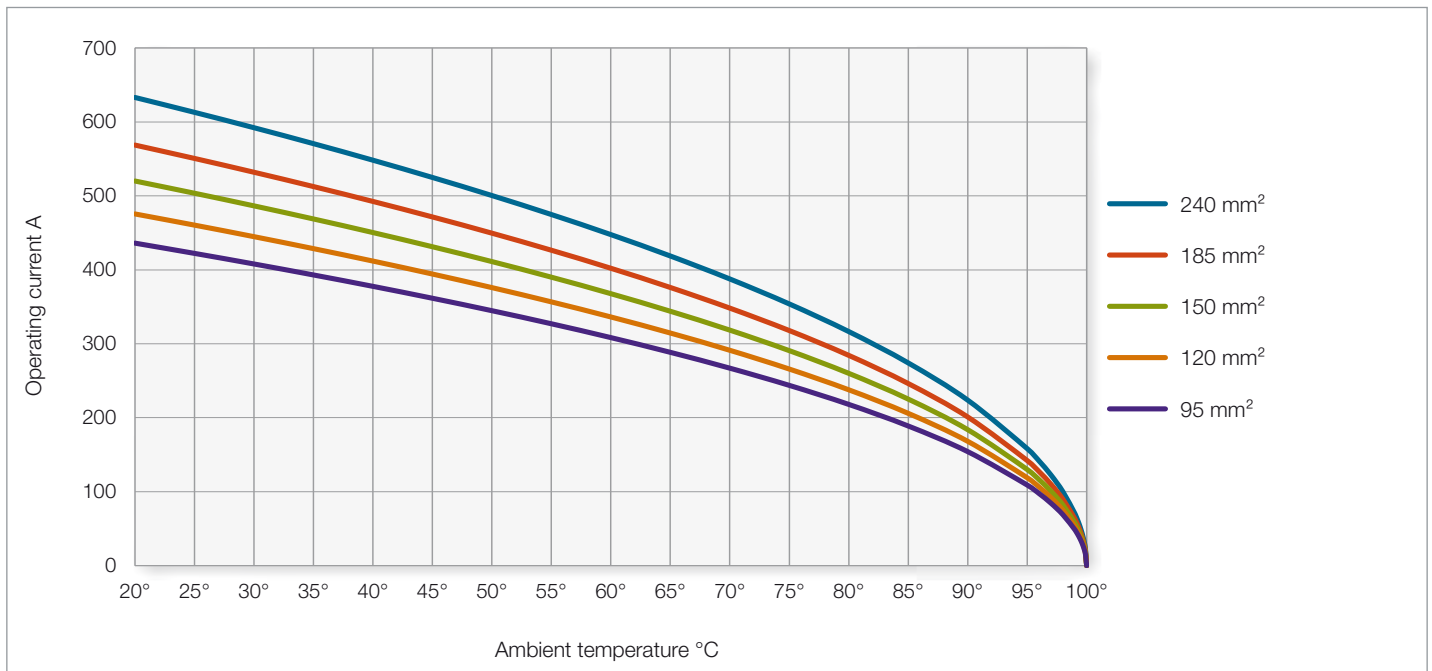
The current-carrying capacity of connectors is limited by the thermal load capacity of the materials of the contact elements including connections and insulating parts. The derating curve applies to currents that are **continuous**, not intermittent, allowed to flow through each contact element of the con-

connector, at the same time, without the upper temperature limit being exceeded.

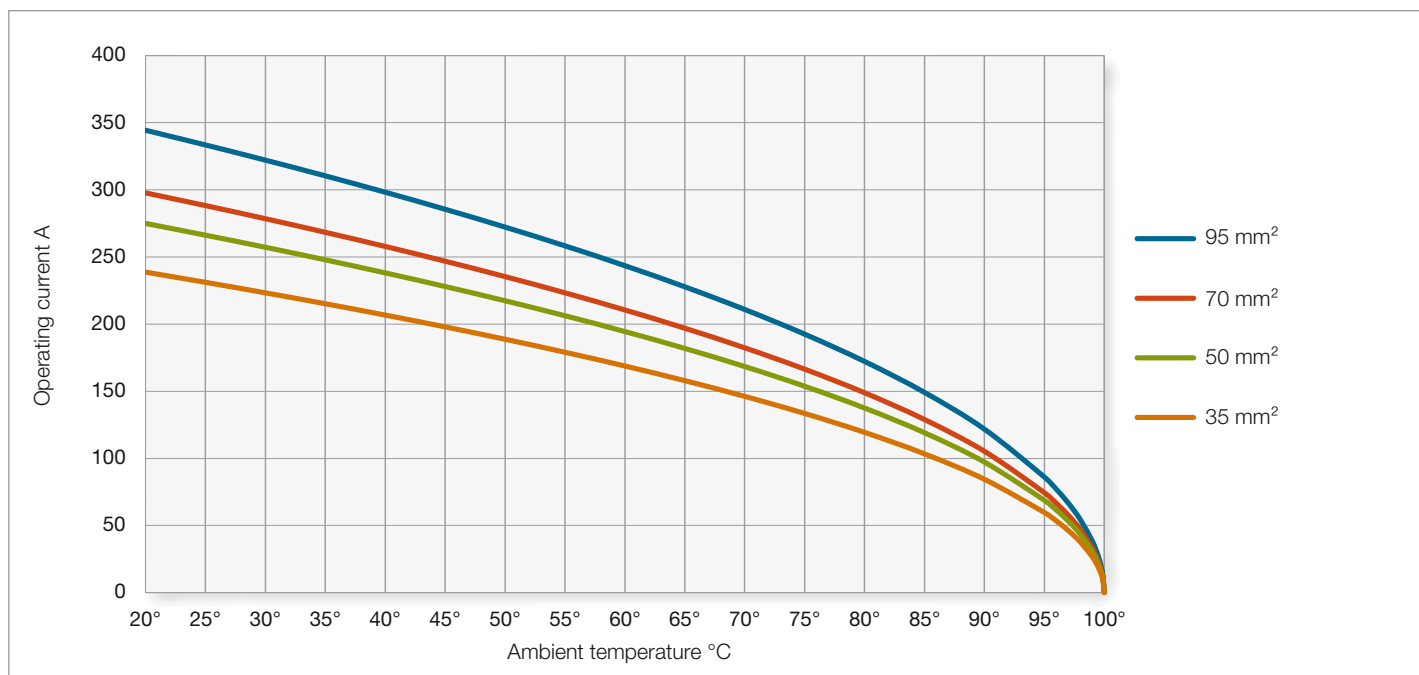
Measuring and test methods according to DIN 41640 Part 3.

The values given in the derating diagrams apply to connectors (see Standard EN 60204). For the permissible load of the cables, refer to the relevant regulations such as DIN VDE 0298-4 and DIN EN 60204-1, IEC 60204-1.

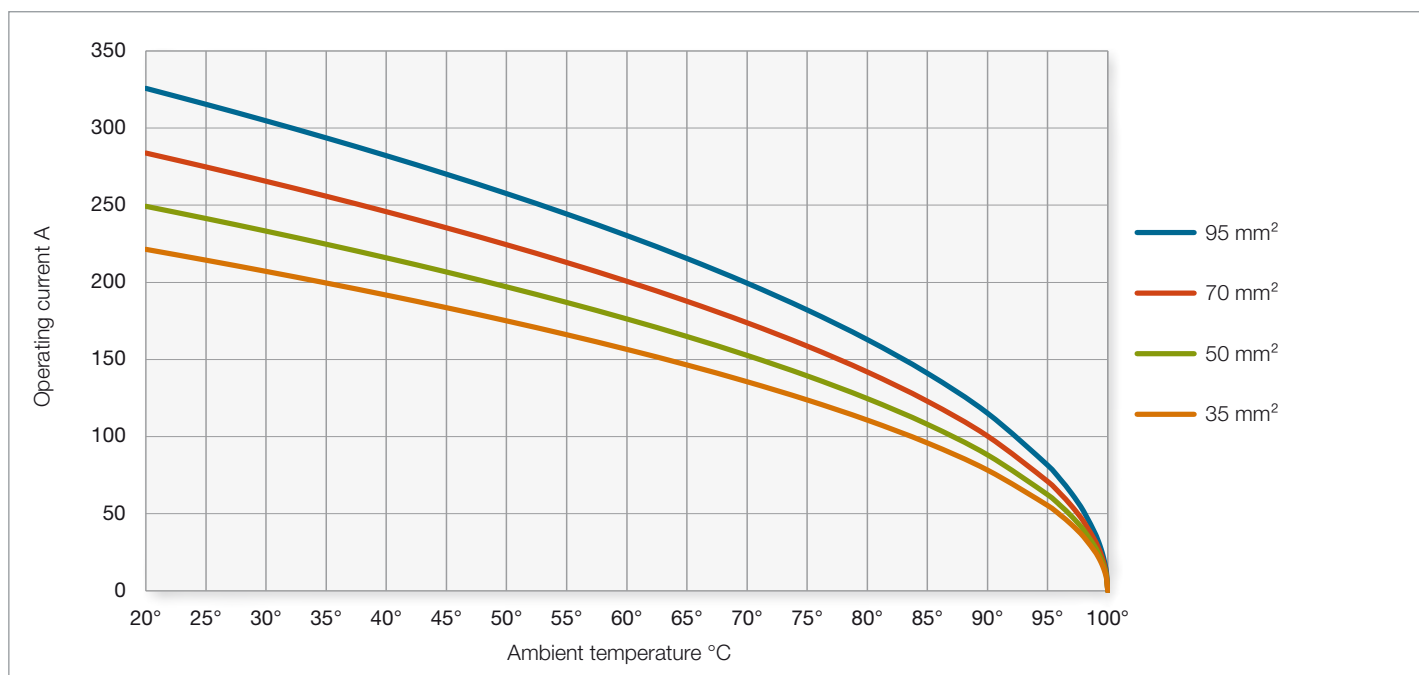
Current-carrying capacity DuraDock power 28



Current-carrying capacity DuraDock power 16, uninsulated and insulated

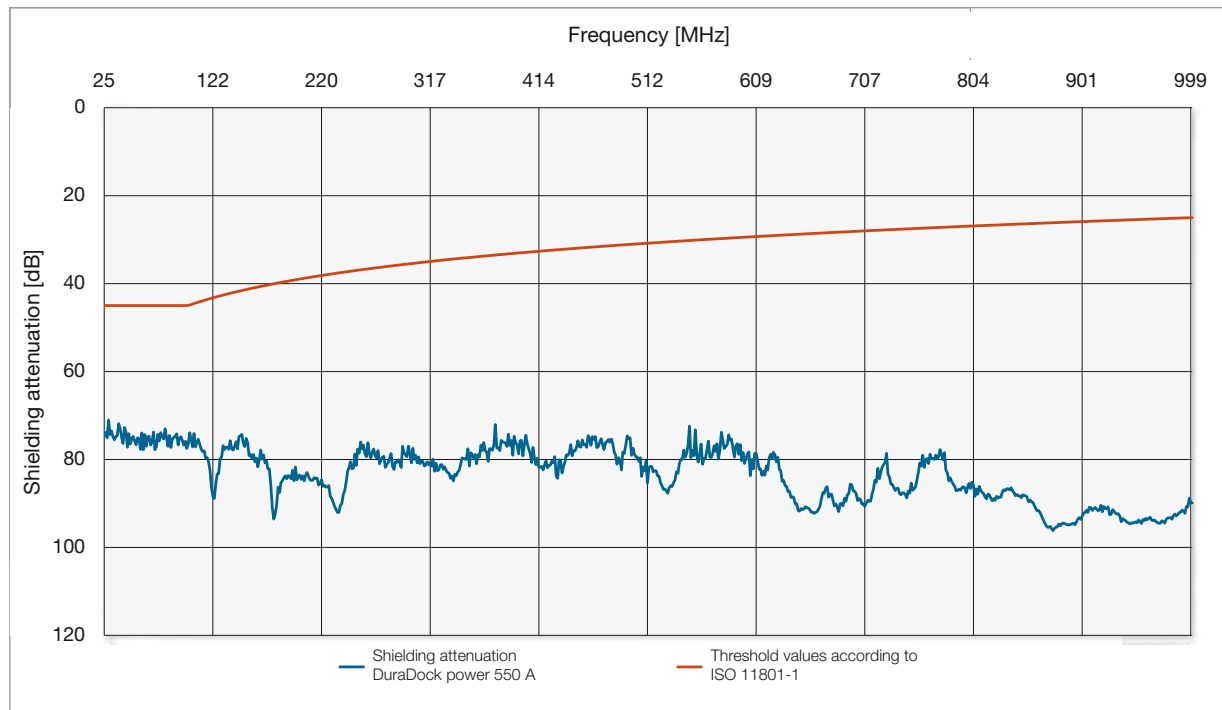


Current-carrying capacity DuraDock power 16, insulated/shielded

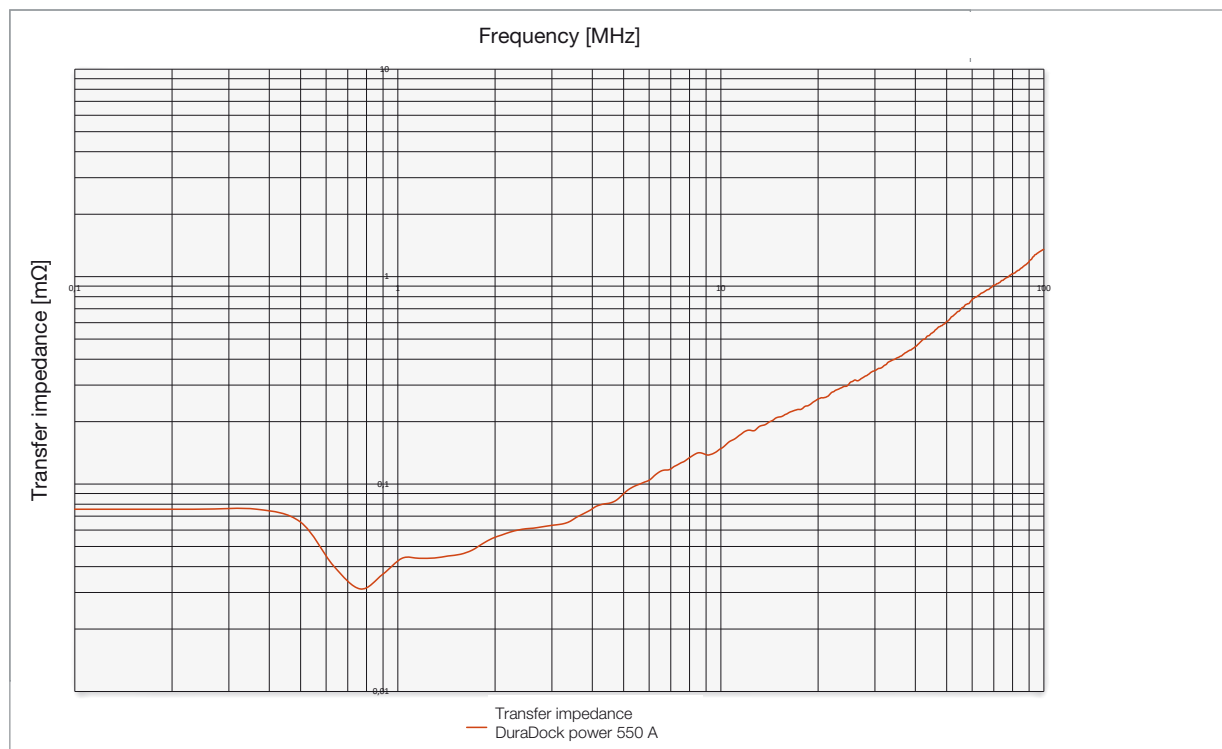


Diagrams for the shielded connectors

Shielding attenuation for DuraDock power 28, insulated/shielded



Transfer impedance for DuraDock power 28, insulated/shielded



INDEX

Index

Sorted by Type

Type	Order No.	Page
DE SW57_A	18.0551	22
DE SW65-A	18.0550	22
DPR16P-ISD-CB35M32	18.0396	17
DPR16P-ISD-CB50M32	18.0397	17
DPR16P-ISD-CB70M32	18.0398	17
DPR16P-ISD-CB95M32	18.0520	17
DPR16P-ISD-CLG35M32	18.0530	19
DPR16P-ISD-CLG50M32	18.0531	19
DPR16P-ISD-CLG70M32	18.0532	19
DPR16P-ISD-CLG95M32	18.0522	19
DPR16P-UIS-CB35	18.0390	13
DPR16P-UIS-CB50	18.0391	13
DPR16P-UIS-CB70	18.0392	13
DPR16P-UIS-CB95	18.0540	13
DPR16P-UIS-CLG35	18.0547	15
DPR16P-UIS-CLG50	18.0548	15
DPR16P-UIS-CLG70	18.0549	15
DPR16P-UIS-CLG95	18.0542	15
DPR16S-ISD-CB35M32	18.0524	17
DPR16S-ISD-CB50M32	18.0525	17
DPR16S-ISD-CB70M32	18.0526	17
DPR16S-ISD-CB95M32	18.0521	17
DPR16S-ISD-CLG35M32	18.0527	19
DPR16S-ISD-CLG50M32	18.0528	19
DPR16S-ISD-CLG70M32	18.0529	19
DPR16S-ISD-CLG95M32	18.0523	19
DPR16S-UIS-CB35	18.0393	13
DPR16S-UIS-CB50	18.0394	13
DPR16S-UIS-CB70	18.0395	13
DPR16S-UIS-CB95	18.0541	13
DPR16S-UIS-CLG35	18.0544	15
DPR16S-UIS-CLG50	18.0545	15
DPR16S-UIS-CLG70	18.0546	15
DPR16S-UIS-CLG95	18.0543	15
DPR28P-ISD-CB120M50	18.0297	17
DPR28P-ISD-CB150M50	18.0287	17
DPR28P-ISD-CB185M50	18.0281	17
DPR28P-ISD-CB240M50	18.0262	17
DPR28P-ISD-CLG120M50	18.0291	19
DPR28P-ISD-CLG150M50	18.0283	19
DPR28P-ISD-CLG185M50	18.0275	19
DPR28P-ISD-CLG240M50	18.0255	19

Type	Order No.	Page
DPR28P-SDD-CB120M40	18.0268	21
DPR28P-SDD-CB150M40	18.0269	21
DPR28P-SDD-CB185M40	18.0270	21
DPR28P-SDD-CB240M50	18.0251	21
DPR28P-UIS-CB120	18.0296	13
DPR28P-UIS-CB150	18.0286	13
DPR28P-UIS-CB185	18.0280	13
DPR28P-UIS-CB240	18.0267	13
DPR28P-UIS-CLG120	18.0292	15
DPR28P-UIS-CLG150	18.0282	15
DPR28P-UIS-CLG185	18.0274	15
DPR28P-UIS-CLG240	18.0249	15
DPR28S-ISD-CB120M50	18.0295	17
DPR28S-ISD-CB150M50	18.0289	17
DPR28S-ISD-CB185M50	18.0277	17
DPR28S-ISD-CB240M50	18.0253	17
DPR28S-ISD-CLG120M50	18.0290	19
DPR28S-ISD-CLG150M50	18.0285	19
DPR28S-ISD-CLG185M50	18.0279	19
DPR28S-ISD-CLG240M50	18.0254	19
DPR28S-SDD-CB120M40	18.0271	21
DPR28S-SDD-CB150M40	18.0272	21
DPR28S-SDD-CB185M40	18.0273	21
DPR28S-SDD-CB240M50	18.0252	21
DPR28S-UIS-CB120	18.0294	13
DPR28S-UIS-CB150	18.0288	13
DPR28S-UIS-CB185	18.0276	13
DPR28S-UIS-CB240	18.0266	13
DPR28S-UIS-CLG120	18.0293	15
DPR28S-UIS-CLG150	18.0284	15
DPR28S-UIS-CLG185	18.0278	15
DPR28S-UIS-CLG240	18.0250	15
F/M14 DIN6798A BN781	08.0708	25
F/M20 DIN6798A BN781	08.0711	27
H35N/M14	18.7577	25
H50N/M14	18.7580	25
H70N/M14	18.7574	25
H95N/M14	07.0022	25
H120N/M20	18.7566	27
H150N/M20	18.7563	27
H185N/M20	18.7560	27
H240N/M20/DDP	33004292	27

Type	Order No.	Page
K-SCH35-14/K	17.1015	25
K-SCH50-14/K	17.1014	25
K-SCH70-14/K	17.1013	25
K-SCH95-14/K	17.0067	25
K-SCH120-20/K	17.1011	27
K-SCH150-20/K	17.1010	27
K-SCH185-20/K	17.1009	27
K-SCH240-20/K	17.0066	27
MU0,8D/M14 AG	08.0108	25
MU0,8D/M20 AG	08.0111	27
SI-RG A38 DIN471 FS	18.5627	25
SI-RG A52 DIN471 FS	18.5609	27
SI-RG A65 DIN471 BN682	33004360	27
SI-RG A72 DIN471	18.5805	27
SPD-DPR16-ISD	18.0569	25
SPD-DPR16S/95-ISD	18.0572	25
SPD-DPR28-ISD	18.0570	27
SW65	33004186	27
UE/M14X1 AG	08.0404	25
U/M20 AG	08.0311	27

Sorted by Order No.

Order No.	Type	Page
07.0022	H95N/M14	25
08.0108	MU0,8D/M14 AG	25
08.0111	MU0,8D/M20 AG	27
08.0311	U/M20 AG	27
08.0404	UE/M14X1 AG	25
08.0708	F/M14 DIN6798A BN781	25
08.0711	F/M20 DIN6798A BN781	27
17.0066	K-SCH240-20/K	27
17.0067	K-SCH95-14/K	25
17.1009	K-SCH185-20/K	27
17.1010	K-SCH150-20/K	27
17.1011	K-SCH120-20/K	27
17.1013	K-SCH70-14/K	25
17.1014	K-SCH50-14/K	25
17.1015	K-SCH35-14/K	25
18.0249	DPR28P-UIS-CLG240	15
18.0250	DPR28S-UIS-CLG240	15
18.0251	DPR28P-SDD-CB240M50	21
18.0252	DPR28S-SDD-CB240M50	21
18.0253	DPR28S-ISD-CB240M50	17
18.0254	DPR28S-ISD-CLG240M50	19
18.0255	DPR28P-ISD-CLG240M50	19
18.0262	DPR28P-ISD-CB240M50	17
18.0266	DPR28S-UIS-CB240	13
18.0267	DPR28P-UIS-CB240	13
18.0268	DPR28P-SDD-CB120M40	21
18.0269	DPR28P-SDD-CB150M40	21
18.0270	DPR28P-SDD-CB185M40	21
18.0271	DPR28S-SDD-CB120M40	21
18.0272	DPR28S-SDD-CB150M40	21
18.0273	DPR28S-SDD-CB185M40	21
18.0274	DPR28P-UIS-CLG185	15
18.0275	DPR28P-ISD-CLG185M50	19
18.0276	DPR28S-UIS-CB185	13
18.0277	DPR28S-ISD-CB185M50	17
18.0278	DPR28S-UIS-CLG185	15
18.0279	DPR28S-ISD-CLG185M50	19
18.0280	DPR28P-UIS-CB185	13
18.0281	DPR28P-ISD-CB185M50	17
18.0282	DPR28P-UIS-CLG150	15
18.0283	DPR28P-ISD-CLG150M50	19
18.0284	DPR28S-UIS-CLG150	15

Order No.	Type	Page
18.0285	DPR28S-ISD-CLG150M50	19
18.0286	DPR28P-UIS-CB150	13
18.0287	DPR28P-ISD-CB150M50	17
18.0288	DPR28S-UIS-CB150	13
18.0289	DPR28S-ISD-CB150M50	17
18.0290	DPR28S-ISD-CLG120M50	19
18.0291	DPR28P-ISD-CLG120M50	19
18.0292	DPR28P-UIS-CLG120	15
18.0293	DPR28S-UIS-CLG120	15
18.0294	DPR28S-UIS-CB120	13
18.0295	DPR28S-ISD-CB120M50	17
18.0296	DPR28P-UIS-CB120	13
18.0297	DPR28P-ISD-CB120M50	17
18.0390	DPR16P-UIS-CB35	13
18.0391	DPR16P-UIS-CB50	13
18.0392	DPR16P-UIS-CB70	13
18.0393	DPR16S-UIS-CB35	13
18.0394	DPR16S-UIS-CB50	13
18.0395	DPR16S-UIS-CB70	13
18.0396	DPR16P-ISD-CB35M32	17
18.0397	DPR16P-ISD-CB50M32	17
18.0398	DPR16P-ISD-CB70M32	17
18.0520	DPR16P-ISD-CB95M32	17
18.0521	DPR16S-ISD-CB95M32	17
18.0522	DPR16P-ISD-CLG95M32	19
18.0523	DPR16S-ISD-CLG95M32	19
18.0524	DPR16S-ISD-CB35M32	17
18.0525	DPR16S-ISD-CB50M32	17
18.0526	DPR16S-ISD-CB70M32	17
18.0527	DPR16S-ISD-CLG35M32	19
18.0528	DPR16S-ISD-CLG50M32	19
18.0529	DPR16S-ISD-CLG70M32	19
18.0530	DPR16P-ISD-CLG35M32	19
18.0531	DPR16P-ISD-CLG50M32	19
18.0532	DPR16P-ISD-CLG70M32	19
18.0540	DPR16P-UIS-CB95	13
18.0541	DPR16S-UIS-CB95	13
18.0542	DPR16P-UIS-CLG95	15
18.0543	DPR16S-UIS-CLG95	15
18.0544	DPR16S-UIS-CLG35	15
18.0545	DPR16S-UIS-CLG50	15
18.0546	DPR16S-UIS-CLG70	15

Order No.	Type	Page
18.0547	DPR16P-UIS-CLG35	15
18.0548	DPR16P-UIS-CLG50	15
18.0549	DPR16P-UIS-CLG70	15
18.0550	DE SW65-A	22
18.0551	DE SW57_A	22
18.0569	SPD-DPR16-ISD	25
18.0570	SPD-DPR28-ISD	27
18.0572	SPD-DPR16S/95-ISD	25
18.5609	SI-RG A52 DIN471 FS	27
18.5627	SI-RG A38 DIN471 FS	25
18.5805	SI-RG A72 DIN471	27
18.7560	H185N/M20	27
18.7563	H150N/M20	27
18.7566	H120N/M20	27
18.7574	H70N/M14	25
18.7577	H35N/M14	25
18.7580	H50N/M14	25
33004186	SW65	27
33004292	H240N/M20/DDP	27
33004360	SI-RG A65 DIN471 BN682	27



● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

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丸紅エレネクスト株式会社

〒530-0003 大阪市北区堂島1丁目6番20号 TEL : 06-6344-2111 FAX : 06-6346-6611
URL : <https://www.m-elenext.co.jp>

特殊部品カンパニー

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事業所

仙台支店 ・ 関東支店 川越オフィス ・ 関東支店 新横浜オフィス ・ 浜松支店 ・ 名古屋支店 ・ 北陸出張所 (富山)
京滋支店 (京都) ・ 大阪支店 ・ 姫路支店 ・ 四国支店 (高松) ・ 九州支店 (福岡)

Marubeni
Ele-Next

